

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 January 2004 (29.01.2004)

PCT

(10) International Publication Number
WO 2004/009651 A1

(51) International Patent Classification⁷: C08F 2/46

(21) International Application Number:
PCT/EP2003/007482

(22) International Filing Date: 10 July 2003 (10.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02405632.7 19 July 2002 (19.07.2002) EP

(71) Applicant (for all designated States except US): CIBA
SPECIALTY CHEMICALS HOLDING INC. [CH/CH];
Klybeckstrasse 141, CH-4057 Basle (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HÜSLER, Rinaldo
[CH/CH]; Näfelerstrasse 41, CH-4055 Basel (CH).
FUCHS, André [DE/DE]; Talstrasse 5, 79597 Schallbach
(DE).

(74) Common Representative: CIBA SPECIALTY CHEMI-
CALS HOLDING INC.; Patentabteilung, Klybeckstrasse
141, CH-4057 Basle (CH).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

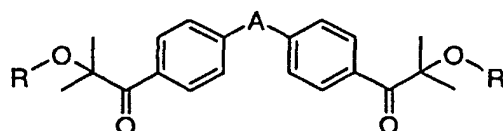
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

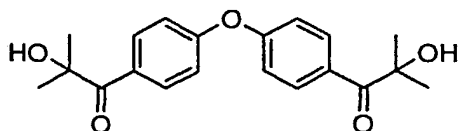
— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

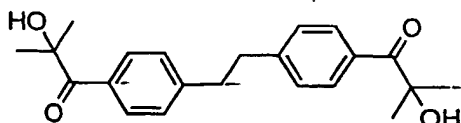
(54) Title: NEW DIFUNCTIONAL PHOTOINITIATORS



(I)



(II)



(III)

(57) Abstract: The invention relates to novel photoinitiators of formula (I) wherein A is -O-, -CH₂-, CH(CH₃)- or -C(CH₃)₂-, and R is methyl or trimethylsilyl, and R may in addition be hydrogen when A is simultaneously the group -C(CH₃)₂-. The invention relates also to compositions comprising (A) at least one ethylenically unsaturated compound, (B) a photoinitiator of formula (I), (C) optionally further binders or additives, (D) optionally further photoinitiators or co-initiators. Composition comprising (A) an ethylenically unsaturated compound that contains at least one aminoacrylate, (B) a photoinitiator of formula (II) or (III), (C) optionally further binders or additives, (D) optionally further photoinitiators or co-initiators.